

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/000442

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7    A23L1/27            A21D8/04            A23C19/032		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC 7    A23L    A21D    A23C		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, FSTA, PAJ, BIOSIS		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DATABASE WPI Section Ch, Week 197828 Derwent Publications Ltd., London, GB; Class D11, AN 1978-50606A XP002286712 & JP 53 062846 A (SUGIYAMA SANGYO KAGAKU KENKYUSHO) 5 June 1978 (1978-06-05) abstract	1-9
A	----- US 6 120 820 A (BRODY ERNEST P ET AL) 19 September 2000 (2000-09-19) claims ----- <div style="text-align: center;">-/--</div>	1-9
<div style="display: flex; justify-content: space-between;"> <span><input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.</span> <span><input checked="" type="checkbox"/> Patent family members are listed in annex.</span> </div>		
<b>* Special categories of cited documents :</b>		
*A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed		*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art *G* document member of the same patent family
Date of the actual completion of the international search  <div style="text-align: center;">23 March 2005</div>	Date of mailing of the international search report  <div style="text-align: center;">14. 07. 2005</div>	
Name and mailing address of the ISA European Patent Office, P.B. 5618 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 apo nl, Fax (+31-70) 340-3016	Authorized officer  <div style="text-align: center;">Baminger, U</div>	

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ZORN H ET AL: "Cleavage of beta,beta-carotene to flavor compounds by fungi." APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol. 62, no. 4, September 2003 (2003-09), pages 331-336, XP002286711 ISSN: 0175-7598 the whole document	1-9
A	EP 1 031 627 A (HOFFMANN LA ROCHE) 30 August 2000 (2000-08-30) paragraphs '0022! - '0025!; examples	1-9
A	GELINAS P ET AL: "Oxido-reductases and lipases as dough-bleaching agents" CEREAL CHEMISTRY, AMERICAN ASSOCIATION OF CEREAL CHEMISTS. MINNEAPOLIS, US, vol. 75, no. 6, November 1998 (1998-11), pages 810-814, XP002230174 ISSN: 0009-0352 cited in the application the whole document	1-9
A	EP 0 282 663 A (EXPRESS FOODS GROUP LTD) 21 September 1988 (1988-09-21) claims	1-9
A	US 6 465 410 B1 (BETTIOL JEAN-LUC PHILIPPE ET AL) 15 October 2002 (2002-10-15) column 7	1-9
A	WO 02/20755 A (GASTEL FRANCISCUS J C VAN ; TOPPOZADA AMR (US); AEHLE WOLFGANG (US); G) 14 March 2002 (2002-03-14) page 1, lines 15-24 page 8, lines 16-23,30-35 page 22, lines 7-12 page 23, lines 9-18; example 11	1-9

## INTERNATIONAL SEARCH REPORT

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PCT/EP2005/000442

### Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-9

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9

A process for the production of a food product comprising the addition of at least one enzyme to convert a pigment (pref. a carotenoid) into a form that increases whiteness of at least a part of the food product. A food product obtainable by such a process and the use of an enzyme that is capable of directly converting pigments into a form that increases the whiteness of at least a part of the food product.

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2. claim: 10

Use of enzymes capable of directly converting pigments for household detergents or in enzymatic stone bleaching processes.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/000442

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 53062846	A	05-06-1978	NONE	
US 6120820	A	19-09-2000	AU 3600900 A CA 2329332 A1 EP 1073341 A1 NZ 507628 A WO 0049882 A1	14-09-2000 31-08-2000 07-02-2001 26-04-2002 31-08-2000
EP 1031627	A	30-08-2000	BR 0000698 A CA 2297438 A1 CN 1269366 A EP 1031627 A1 JP 2000236888 A US 2003087336 A1 US 6797498 B1 US 2005059061 A1	14-08-2001 22-08-2000 11-10-2000 30-08-2000 05-09-2000 08-05-2003 28-09-2004 17-03-2005
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WO 0220755	A	14-03-2002	US 6905853 B1 AU 8700501 A EP 1315802 A2 WO 0220755 A2	14-06-2005 22-03-2002 04-06-2003 14-03-2002